Maryland
Department of the Environment

The Role of Forests in Maryland's Climate Change Strategy

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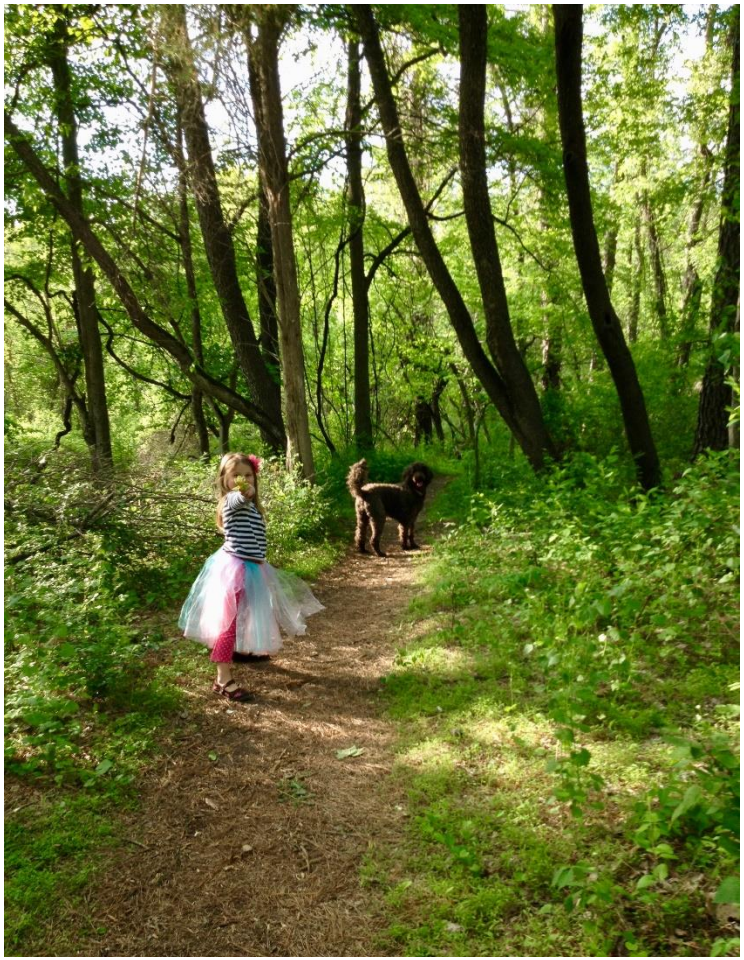
Climate Change Policy and Biomass

- Biomass has a role in Maryland's climate change strategy
- Increased & better-managed forests generate biomass and sequester more carbon
- Carbon accounting for Biomass is complicated

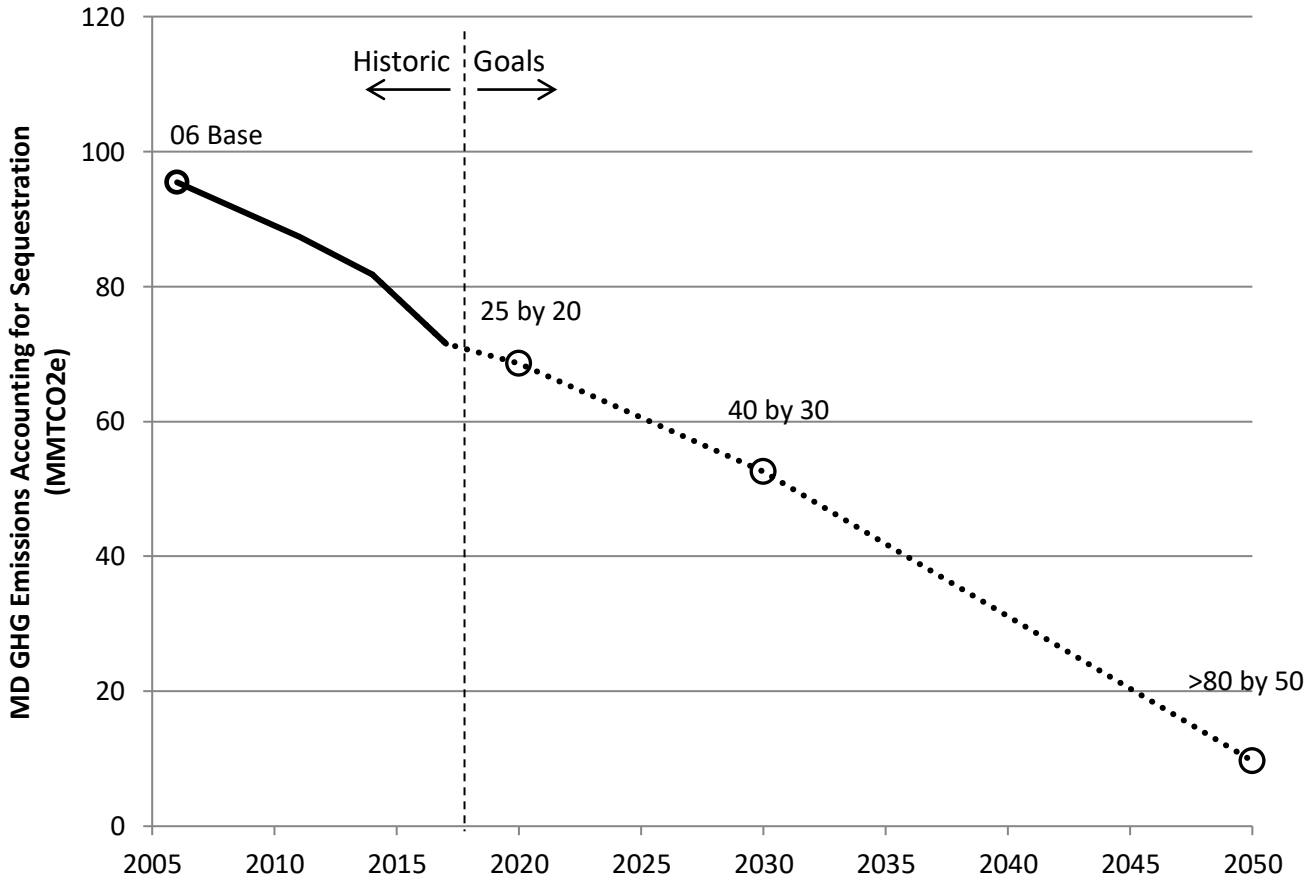
Understanding and acknowledging the role of managed forests for climate

- MDE is engaging with partners like DNR and MDA on natural solutions to climate change
  - Better tools and updated methodology are necessary
- MDE's climate modeling can be refined if additional information is available



Greenhouse Gas Reduction Act Plan

Requirement: Publish a plan to reduce GHGs by 25% by 2020, and 40% by 2030



GGRA Plan relies on Carbon Sequestration

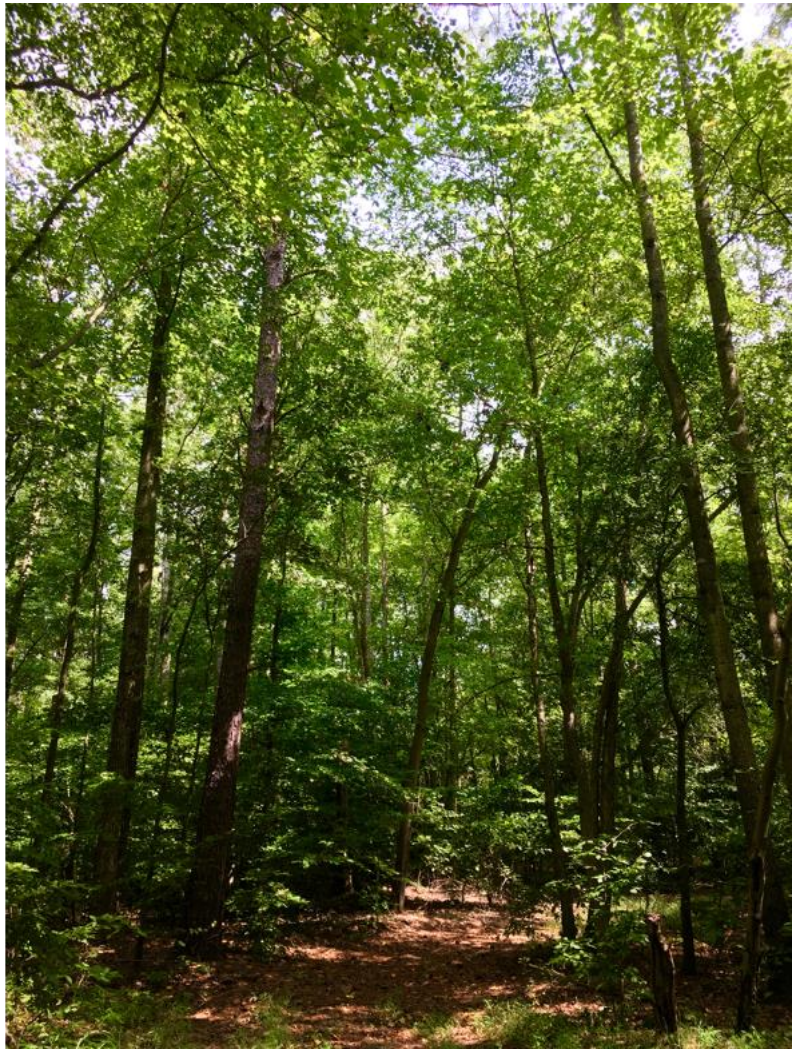
- Meeting our 40% by 2030 goal relies on increased carbon sequestration (emission sinks)
  - but, sequestration from Maryland forests is decreasing (about 17% from 2006 baseline)
- Enrolling unmanaged forests into management regimes will increase the rates of carbon sequestration and availability of biomass for energy

Biomass in the Renewable Portfolio Standard (RPS)

- The RPS Program requires electricity suppliers to meet a prescribed minimum portion of their retail electricity sales with various renewable energy sources
  - qualifying biomass is a Tier 1 renewable energy source
- The RPS program is implemented through the creation, sale and transfer of Renewable Energy Credits (RECs)

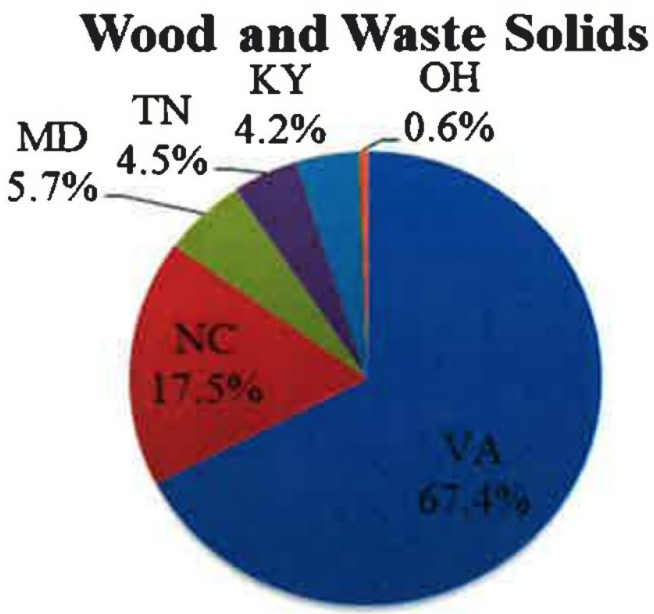
What is ”qualifying biomass” in the RPS

- "Qualifying biomass” is a nonhazardous, organic material that is available on a renewable or recurring basis, and is a waste material that is separated from inorganic waste material and is derived from sources including forest-related resources



Woody Biomass RECs by State (2017)

- Most qualifying biomass RECs are not coming from Maryland
- Biomass accounts for only 0.1% of RECs generated in Maryland



Climate Impacts of Biomass for Energy

- There are different methods of measuring and counting emissions from forest biomass for energy
  - Several biological as well as forestry market dynamics will effect net carbon emissions
- MDE counts the CO_2 from biomass combustion in our annual GHG inventory
  - the carbon cycle is difficult to consider in such a short time frame (3-yr inventory analysis)
- Studies that account for market effects on forestry management indicate net climate benefits from using biomass for energy
- This is complicated but MDE is listening

Forestry's role in GHG Mitigation – Beyond Sequestration

- Reducing barriers for biomass energy impacts other key sectors in the fight against climate change
  - Enhanced incentives for new wood and pellet stoves > offset emissions from dirtier sources of comfort heat
  - Production of liquid fuels from biomass can offset emissions from gas and diesel vehicles
  - Biomass can replace/supplement fossil fuel-fired electricity generation
  - Biomass for energy in rural areas can eliminate the need for large and expensive natural gas infrastructure projects

- Governor Hogan's clean energy standard (CARES) gave biomass with carbon capture double-credit as a negative emissions source

Questions?

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